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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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LACASSE & ASSOCIATES, LLC
1725 DUKE STREET
SUITE 650
ALEXANDRIA, VA 22314

EXAMINER

ABEL JALIL, NEVEEN

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,366

Applicant(s)

EDLUND ET AL.

Examiner

Neveen Abel-Jalil

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 21-24 is/are allowed.
- 6) ☒ Claim(s) 5, 7-9, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 6, 10 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Remarks

1. Applicant's election without traverse of Group I: Claims 1-10, and 17-24 in the reply filed on January 21, 2005 is acknowledged.

Claims 11-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on January 21, 2005.

2. This application contains claims 11-16 drawn to an invention nonelected with traverse filed on January 21, 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 17, and 20 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, directed towards an data structure.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". "Rubber Tip Pencil Co. V. Howard", 20 Wall.498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work "Gottschalk v. Benson", 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical

phenomena, and abstract ideas are not patentable subject matter "Parker v. Flook", 197 USPQ 193, 201 (S Ct 1978).

Database Structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. Applicant's claims are not within any of the statutory classes. "A database structure" should define structural and functional interrelationships between data structures or functional parts and a computer system which permit the data functions to be realized, and is statutory.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 17, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In claim 17, line 12, the recitation of "increasing confidence" is vague and confusing since "confidence" measurement was not even introduced in the claim body prior to this recitation of "increasing confidence".

8. In claim 17, line 12, the recitation of "location information" is vague and indefinite for failing to particularly point out and distinctly claim the subject matter of which "location" is being referred hereto.

9. In claim 17, line 13, the recitation of “identified expiration times” is vague and indefinite for failing to particularly point out and distinctly claim the subject matter of which “expiration times” is being referred hereto, since the body of the claim previously only refers to “optimal expiration time” in the singular and not the plural.

Claim 20 is dependent on Independent claim 17, and therefore carries the same deficiencies.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 5, 8-9, 17, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (U.S. Patent No. 6,873,290 B2).

As to claims 5, and 9, Anderson et al. discloses a method for increasing confidence for tracking information originating from one or more location positioning modules, said method comprising:

a. receiving location reports from said one or more location positioning modules (See

Anderson et al. column 14, lines 1-67);

b. storing said location reports in one or more databases (See Anderson et al. column 50, lines 45-67);

c. creating N optimal partitions for location reports corresponding to each of said location positioning modules (See Anderson et al. column 6, lines 32-42);

d. identifying via pattern analysis an expiration time associated with each of said created partitions (See Anderson et al. column 16, lines 45-67); and

e. utilizing said identified expiration times corresponding to each of said location positioning modules to identify an expiration time and placing increased confidence in location reports corresponding to said identified expiration time (See Anderson et al. column 5, lines 54-67, also see Anderson et al. column 6, lines 1-16).

As to claims 8, and 20, Anderson et al. discloses wherein said method reduces required communication bandwidth by inhibiting transmission of location data during said estimated expiration times (See Anderson et al. column 29, lines 39-55, also see Anderson et al. column 31, lines 28-54).

As to claim 17, Anderson et al. discloses a method for providing a measure of degradation associated with location reports over a period of time, said location reports corresponding to one or more tracked entities, said method comprising:

a. setting a counter to point to first of said tracked entities (See Anderson et al. column 20, lines 11-48, also see Anderson et al. column 35, lines 17-54);

b. identifying one or more clusters associated with tracked entity pointed by said counter
(See Anderson et al. column 39, lines 20-45);

c. creating N optimal partitions for each of said identified clusters (See Anderson et al.
column 37, lines 16-55, wherein "N optimal" reads on "total number");

d. identifying an optimal expiration time associated with each of said partitions via time
interval analysis (See Anderson et al. column 40, lines 18-25, also see Anderson et al. column
49, lines 29-55);

e. incrementing said counter to point to next of said tracked entities and repeating steps b-
d exhaustively for remainder of said tracked entities (See Anderson et al. column 40, lines 60-67,
also see Anderson et al. column 41, lines 1-14);

f. increasing confidence in location information reported by each of said tracked entities
based upon said identified expiration times (See Anderson et al. column 15, lines 11-64, also see
Anderson et al. column 29, lines 23-55, and see Anderson et al. column 42, lines 22-43).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (U.S. Patent No. 6,873,290 B2) in view of Horvitz (U.S. Pub. No. 2002/0087649 A1).

As to claims 7, and 9, Anderson et al. does not teach wherein said system communicates with said tracked entities via simple object access protocol (SOAP).

Horvitz teaches wherein said system communicates with said tracked entities via simple object access protocol (SOAP) (See Horvitz page 18, paragraphs 0318-0320).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Anderson et al. to include wherein said system communicates with said tracked entities via simple object access protocol (SOAP).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Anderson et al. by the teaching of Horvitz to include wherein said system communicates with said tracked entities via simple object access protocol (SOAP) because it is well known web standard protocol used in the database technology and Internet fields.

Allowable Subject Matter

14. Claims 6, 10, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The prior art of record (Anderson et al. -U.S. Patent No. 6,873,290 B2-and- Horvitz -U.S. Pub. No. 2002/0087649 A1) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim), wherein said step of identifying an expiration time further comprises the steps of: a. identifying several frequent time intervals between

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location reports in a cluster using a logarithmic time interval scale, and b. identifying an optimal expiration time from said identified intervals based upon applying a threshold T, as found in claims 6, 10, and 18.

Reasons for Allowance

15. Claims 11-4, and 21-24 are allowed over the prior art made of record.

16. The following is a statement of reasons for allowance:

The prior art of record (Anderson et al. -U.S. Patent No. 6,873,290 B2-and- Horvitz -U.S. Pub. No. 2002/0087649 A1) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim), in an online mode, receiving a single location data from a tracked entity and repartitioning already partitioned data in said databases corresponding to said tracked entity and based upon said received location data, and said classifier, in a batch mode, clustering and repartitioning location data in said databases corresponding to a tracked entity upon a request from said analysis trigger, and e. an expiration time analyzer performing pattern analysis and estimating expiration times associated with each of said repartitioned data computed by said classifier, said expiration times, as claimed in Independent claims 1, and 21.

Dependent Claims 2-4, and 22-24 being further limiting to the Independent claims 1, and 21, respectively, therefore, also allowed.

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Conclusion


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074.

The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 571-272-4038. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil
May 10, 2005


CHARLES RONES
PRIMARY EXAMINER